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MALACOLOGICAL NOTES FROM WESTERN CUBA

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In 1948 (*Torreia, 13,* May; not *12,* March, as in *Revista Soc. Mal. 7:* 67) Aguayo and Jaume described two species of *Cupulella,* a remarkable new genus of land snails from near La Palma in Pinar del Río Province. They provisionally placed the genus in the family Sagdidae. Subsequently in 1950 (*Rev. Soc. Mal., 7:* 67) on the basis of anatomical examination of living specimens, they decided to put the genus into the Achatinidae near *Lyobasis.*

On July 22, 1953, we paid a visit to the Mogote Talavera at km. 5 to the north of the Viñales-La Palma highway, the type locality of *Cupulella dominguezi.* There had been heavy rains the night before and we collected live snails in large numbers. In a hollow at the base of a tree, we found about twenty live cupulellas and noted with some surprise that the animals were moving about carrying or, rather, dragging the comparatively large shell behind them with the spire down and the large, hollowed basal region facing up. This is probably why the nuclear whorls in most specimens stand out whitish against the predominantly brownish cast of the shell. At home some of these snails revived and here I noted, that in the small jar where I kept them, some also seemed to carry the shell spire up. The animals did not long survive, but from what was seen, the animal can apparently move with its shell either spire up or spire down, with the latter position the one preferred.

The various genera and species of Oleacinidae are the outstanding examples of predatory snails in the mogotes and sierras of western Cuba. The feeding habits of their mainland relatives, *Euglandina,* have frequently been observed and recorded, chiefly by Pilsbry (1907, *Man. Conch.,* Ser. II, *19:* XII—reproduced in *Land Moll. N. A., 2:* 189, 1946) and Ingram & Henning (1942,

Zoologica: 2: 81–88), who also give a short bibliography of the subject. In these cases, the predator is described as attacking the food snail via the aperture. As far as I could find, only F. C. Baker (1903, *Shells of Land and Water,* p. 51) reported that *Euglandina* "sometimes . . . will make a hole for itself in the shell of the victim and will eat the contents through this aperture" (loc. cit.). This habit might be of little use to *Euglandina* which, north of Mexico at least, has to contend with only two or three small operculate genera. That it definitely is the habit of the Cuban oleacinids, which probably meet with more operculate than inoperculate snails in their daily hunt for food, was demonstrated in San Vicente. There, in the well-known Ensenada del Balneario on July 15, 1953, I collected a specimen of *Oleacina oleacea straminea* (Deshayes) tightly fixed to the base of a *Rhytidothyra bilabiata rosacea* Torre and Bartsch. Upon separating the snails, I found that the *Oleacina* had apparently scraped an irregular hole about one millimeter in diameter at the base of the body whorl near the aperture. The operculum of the *Rhytidothyra* was fixed in place, but soon dropped off, indicating that the predator had not only killed but had also eaten the food snail through this hole. The hole is very different from the countersunk hole that is left in its victims by the marine snail *Natica,* but the irregular edge has a border of a thinned area of shell matter where the outer layers had been scraped away. This hole, which we later found in many dead and bleached shells, may be taken for the result of the natural weathering of dead shells, but the thinned margin betrays its true origin. This Oleacina-produced hole is quite unlike that reported in some land shells of Yucatan by Harry (Occ. Pap. Mus. Zool. U. Mich., 524, p. 27, 1950).

While collecting *Viana regina* (Morelet) in the areas of Viñales, San Vicente, Luis Lazo and La Palma—which here is one of the commonest species although appearing in many different sizes, colorations and types of surface sculpture—we were struck by a thin vermillion-reddish deposit on the posterior portion of the aperture, just where the glazed columellar callus borders on the rest of the body whorl. This deposit did not appear on all specimens, but enough seem to have it to make it quite noticeable. It is a surface deposit and can be removed by

a little rubbing. The deposit is irregular in outline and varied in size, and sometimes appears in blotches even on the outer surface of the operculum. Chemical investigation might help give a clue to its origin and significance, if any.

The land shell genus *Proserpina* occurs in Jamaica and Cuba. In Thiele (*Handb. Weichtierk.* p. 90) the genus is divided into two sections, apparently on the presence or absence of apertural lamellae. *Proserpina* s.s. is restricted to Jamaica.

When I collected *Proserpina nitida* Sowerby at Quickstep in Trelawney Parish in July 1949, I noticed that when the snail was active, its mantle completely covered its shell, much like the marine Cypraeidae, so that the shell was quite invisible. As I recall—my notes were mislaid—*P. nitida* has a yellow-greenish mantle heavily speckled with dark spots.[1] But when I collected *Proserpina* (*Despaenella*) *depressa* d'Orbigny in the Ensenada Miranda at the base of El Queque in Viñales, I found no specimen using its mantle in that manner. Apparently this feature, provided that my observations can be corroborated, is more deserving of diagnostic status than the absence or presence of lamellae.

In 1950 (*Rev. Soc. Mal., 7:* 70) *Aguayo* described and named a new subspecies, *Cepolis* (*Eurycampta*) *bonplandi pinarensis,* and stated that its limits of distribution are comprised by Viñales and Consolación del Norte southwest to Luis Lazo. However, we have it also from the following localities, all well to the west of Luis Lazo and all representing an extension of range: Mogote de Punta de la Sierra, the mogotes between Tenería and La Muralla on the road to Guane, and finally at the Cueva Oscura of Los Portales. The last named is about 14 miles southwest of Luis Lazo. All told, the subspecies *pinarensis,* as we now know, occupies an area about 35 miles in extent, so that this extension of range is not inconsiderable. At the Paso Real near Guane, we collected only typical *bonplandi.*

[1] See vol. 47 (4), p. 151, for animals of 4 Jamaican spp. H. B. B.